

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **Ole KORSGREN et al**Art Unit: **1614**Application No.: **09/180,936** 371 (c)Examiner: **Donna A. Jagoe**Filed: **November 7, 2001**

Washington, D.C.

For: **NOVEL USE WITH TRANSPLANTATION SURGERY**Atty.'s Docket: **KORSGREN-1**Confirmation No.: **9165**Date: **MONDAY - August 24, 2009**Customer Service Window, **Mail Stop APPEAL BRIEF**Honorable Commissioner for Patents  
U.S. Patent and Trademark Office  
Randolph Building, 401 Dulany Street  
Alexandria, Virginia 22314

Sir:

Transmitted herewith is a **REPLY BRIEF ON BEHALF OF APPELLANTS UNDER 37 C.F.R. § 41.41** in the above-identified application.☐ Small Entity Status: Applicant(s) claim small entity status. See 37 C.F.R. §1.27.☒ No additional fee is required.☐ The fee has been calculated as shown below:

	(Col. 1)		(Col. 2)	(Col. 3)
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA EQUALS
TOTAL	*	MINUS	** 20	
INDEP.	*	MINUS	*** 3	
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				

SMALL ENTITY	
RATE	ADDITIONAL FEE
x 26	\$
x 110	\$
+ 195	\$
ADDITIONAL FEE TOTAL	

OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE
x 52	\$
x 220	\$
- 390	\$
TOTAL	

\* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.

\*\* If the "Highest Number Previously Paid for" IN THIS SPACE is less than 20, write "20" in this space.

\*\*\* If the "Highest Number Previously Paid for" IN THIS SPACE is less than 3, write "3" in this space.

The "Highest Number Previously Paid For" (total or independent) is the highest number found from the equivalent box in Col. 1 of a prior amendment of the number of claims originally filed.

☒ Conditional Petition for Extension of Time

If any extension of time for a response is required, applicant requests that this be considered a petition therefore.

☐ It is hereby petitioned for an extension of time in accordance with 37 CFR 1.136(a). The appropriate fee required by 37 CFR 1.17 is calculated as shown below:

## Small Entity

## Response Filed Within

☐ First - \$ 65.00  
☐ Second - \$ 245.00  
☐ Third - \$ 555.00  
☐ Fourth - \$ 865.00

Month After Time Period Set

## Other Than Small Entity

## Response Filed Within

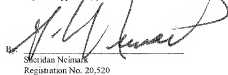
☐ First - \$ 130.00  
☐ Second - \$ 490.00  
☐ Third - \$ 1110.00  
☐ Fourth - \$ 1730.00

Month After Time Period Set

☐ Less fees (\$ ) already paid for month(s) extension of time on .☐ Please charge my Deposit Account No. 02-4035 in the amount of \$ .☐ Credit card payment authorizing payment in the amount of \$ .☐ A check in the amount of \$ is attached (check no. ).☒ The Commissioner is hereby authorized and requested to charge any additional fees which may be required in connection with this application or credit any overpayment to Deposit Account No. 02-4035. This authorization and request is not limited to payment of all fees associated with this communication, including any Extension of Time fee, not covered by check or specific authorization, but is also intended to include all fees for the presentation of extra claims under 37 CFR §1.16 and all patent processing fees under 37 CFR §1.17 throughout the prosecution of the case. This blanket authorization does not include patent issue fees under 37 CFR §1.18.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

ATTY.'S DOCKET: KORSGREN=1

In re Application of:	)	Art Unit: 1614
	)	
Olle KORSGREN et al	)	Examiner: Donna A. Jagoe
	)	
Appln. No.: 09/890,936	)	Washington, D.C.
	)	
Filed: November 7, 2001	)	Confirmation No. 9165
	)	
For: NOVEL USE WITH	)	August 24, 2009
TRANSPLANTATION SURGERY	)	MONDAY

REPLY BRIEF ON BEHALF OF APPELLANTS under 37 C.F.R. §  
41.41

Customer Service Window  
Randolph Building, Mail Stop APPEAL BRIEF  
401 Dulany Street  
Alexandria, VA 22314

Sir:

This is a Reply Brief under 37 CFR § 41.41 in reply  
to the Examiner's Answer mailed June 23, 2009.

Appellants' Invention

Under the heading "Summary of Claimed Subject  
Matter" near the bottom of page 2 of the Examiner's Answer,  
the Examiner has stated as follows:

Appellant's brief suggests that there is a  
specific agent recited in the claim (e.g.  
Corline Heparin Conjugate). However, this  
specific coating agent is not disclosed in  
the instant claims. Again on page 7 of  
the Summary of Claimed Subject Matter,  
Appellant states that the claimed subject

matter discloses "a conjugate of heparin to coat the islets" when in fact what is claimed is "heparin or a fraction or derivative thereof".

This is somewhat misleading, as Appellants' stated in the top paragraph on page 5 of their main brief as follows:

This coating takes place from an aqueous solution of the heparin, e.g. Corline Heparin Conjugate,...

Appellants merely set forth Corline Heparin Conjugate as an example of the claimed aqueous solution.

And in the third paragraph on page 7 of Appellants' main brief, Appellants again refer to Corline Heparin Conjugate in conjunction with example 3, as support for an aqueous solution.

It should also be mentioned that the Examiner has repeatedly referred to Corline Heparin Conjugate, e.g. in the Final rejection of April 22, 2008, at pages 4 and 8 with respect to the heparin in WO93/05793, and again in the sentence spanning pages 10 and 11, and Appellants can hardly ignore such Conjugate when the Examiner repeatedly mentions it.

#### **The Evidence**

On page 3 of the Examiner's Answer, the Examiner provides a listing of the prior art under the heading "Evidence Relied Upon." But there is other evidence in this

case, namely the evidence of the four declarations of record, and Appellants wish to respectfully emphasize that the declarations constitute evidence which should not have been, and cannot be properly, ignored or brushed aside by the Examiner.

**The rejection based on Wagner is unjustified**

In the statement of the rejection under §102 based on Wagner, the Examiner states in the top paragraph on 4 of the Examiner's Answer that "The cells [in Wagner] may be in the form of microencapsulated islets (see figure 1 and claim 10)". It is correct that the cells of Wagner may be islets, but there is no disclosure whatsoever in Wagner that isolated islets may be used without microencapsulation and it is certainly not inherent in Wagner.

In Figure 1 of Wagner, examples are confined to methods which imply microencapsulation. In Claim 10 of Wagner, relied upon by the Examiner, various examples of immobilization systems are provided, but there is absolutely no mention and no hint of the possibility of transplanting isolated islets without encapsulation. Claim 10 relies on claim 8 through claim 9, and claim 8 is directed to an immobilization system consisting of a porous or hollow material. Hence, the statement of the Examiner referred to

above is misleading and incorrect. The Examiner relies on something which Wagner does not disclose, and reads into Wagner what the Examiner has learned from Appellants' specification.

The Examiner persists in maintaining that there is no difference between encapsulation or microencapsulation as in Wagner, and the present invention wherein there is no encapsulation or microencapsulation, contrary to all the evidence presented in the declarations of record.<sup>1</sup> Appellants respectfully submit that the Examiner has substituted her own judgement, without any factual support, for the evidence of record, and this is improper.

For a reference to be properly anticipatory under §102, the reference must disclose each and every element of the claimed invention, *Eli Lilly and Co. v. Zenith Goldline Pharms., Inc.*, 81 USPQ2d 1324, 1328 (Fed. Cir. 2006), and those elements must be "arranged or combined in the same way as in the claim," *Net MoneyIN Inc. v. VeriSign Inc.*, 88 USPQ2d 1751, 1759 (Fed. Cir. 2008), quoting from *Finisar Corp. v. DirecTV Group Inc.*, 86 USPQ2d 1609, 1618 (Fed. Cir. 2008). Wagner clearly does not meet the test for anticipation.

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<sup>1</sup> In this context, it is important to emphasize that isolated cells kept in a culturing medium, as is feasible according to the present invention, can be transplanted according to the established method, i.e. via infusion into the portal vein so that the islets can be grafted into the liver. This is not possible with encapsulated islets, which need to be implanted into peripheral tissue or connected to the blood circulation by a macro-device (see diagram 2 in Wagner).

Respectfully, Applicants' claims do not even come close to being anticipated by Wagner.

As clearly pointed out in the Declaration of Dr. James Shapiro, there is no confusion in the islet research field between encapsulation as in Wagner, and isolated or individually isolated islets as claimed (see bottom of page 3 of the Shapiro Declaration). At the middle section on page 11, the Examiner concludes that "It is unclear to the Examiner how 'coated' differs from 'encapsulated'." According to the present invention, the islets are treated with heparin without changing their status as individually isolated islets. Wagner, to the contrary, describes an *immobilization system*, which may be a porous or hollow fiber material (e.g. claim 8 of Wagner, based on the top parts of Fig. 1 of Wagner; see page 5 of the translation of Wagner), which according to claim 6 of Wagner should allow release of a definite quantity of the agent upon application of electric voltage. The product according to claims 2-12 of Wagner is clearly composed of two parts: one is immobilized organic material, which may be islets, and the other is *the immobilization system* (c.f. above).

In claim 6 of Wagner, it is recited that *the immobilization system* (not the islets) should contain components that suppress or prevent agglomeration. Claim 7

names heparin as one alternative. Hence, there is absolutely no disclosure in and no suggestion by Wagner to treat the islets (immobilized organic material) with heparin.

On page 4 of the Examiner's Answer, the Examiner reiterates, "Additionally, if the cells are microencapsulated, they are first mixed with the anticoagulant material". This is unsupported speculation on the part of the Examiner, as there is no support whatsoever in Wagner for this statement. As pointed out in the Declaration of Rolf Larsson, heparin is only mentioned once in Wagner and that is in claim 7 which relates to Wagner's immobilization system, not the islets. If anything is optionally treated with heparin according to Wagner, it is *the immobilization system*.

At the middle of page 8 in the Examiner's Answer, the Examiner says "Thus, this does not appear to be a new discovery as alleged by the Applicant". Referring to the passage above, the conclusion drawn by the Examiner is factually incorrect. Wagner discusses a well-known phenomenon, namely the problem of platelet adhesion and activation on artificial synthetic materials. This is a problem related to *the immobilization system*. Wagner does not even remotely imply, let alone mention, that isolated islets may activate platelets simply because this phenomenon was not known at that time (the Wagner patent application was filed

1996 - the paper by Bennet et al in which IBMIR was described for the first time was published in 1999).

On page 9, line 4-5 of the Examiner's Answer, the Examiner misquotes Wagner in saying that the "immobilized organic material" contains components (e.g. heparin) to suppress agglomeration. Again, it is clearly the *immobilization system, not the immobilized organic material (as e.g. an isolated islet)* that may contain an anticoagulant. The Examiner repeats this erroneous and untenable view once again on page 16, line 14. Wagner does not put the skilled reader in possession of the claimed invention, and does not contain a disclosure which would have enabled the person skilled in the art to make and use the claimed invention.

As pointed out at length in Appellants' main brief, and as elaborated above, Wagner does not come even close to anticipating any of Appellants' claims, as Wagner does not disclose each and every element of Appellants' claims, let alone such elements arranged or combined in the same way as in Appellants' claims. The Examiner has not met her burden, and the rejection should be reversed. Such is respectfully requested.



**The rejection based on Soon-Shiong is unjustified**

The situation is quite similar with respect to the anticipation rejection based on Soon-Shiong. The closest that Soon-Shiong comes to the present invention, and it is still quite a distance from the present invention as pointed out previously and below, is the suggestion that heparin may be used to modify the characteristics of microcapsules (claims 5 and 6 of Soon-Shiong), but there is absolutely no disclosure (and also no suggestion) of modifying individually isolated islets with heparin.

As pointed out previously in Appellants' main brief, and above in the remarks concerning Wagner, encapsulation as in the prior art is quite different from what is claimed. This is well established in the declarations of record which (and again) constitute evidence, and the Examiner has no evidence to the contrary.

Soon-Shiong does not anticipate any of Appellants' claims. The Examiner has not met her burden, and the rejection should be reversed. Such is respectfully requested.

**The rejection based on Nomura is unjustified**

As regards the rejection of claims 4, 9 and 11 under §102 by Nomura, it should be noted that according to the protocol described by Nomura, heparin was administered

intravenously in connection with islet transplantation via the portal vein, whereby the heparin would have been instantaneously diluted in the blood volume coursing through the portal vein. There is no disclosure of any incubating of the islets in a solution of heparin or a fraction or derivative thereof as claimed by Appellants, and there is absolutely no reasonable certainty of any such incubation occurring to provide the claimed modification, which reasonable certainty would be necessary for inherency to exist.

Protocols similar to that disclosed by Nomura have been presented by several researchers, including the Appellants (see Bennet et al, Diabetes, 1999, vol. 48, page 1907-1914), prior to the submission of the present patent application. In none of these protocols was there any disclosure of the possibility of preincubating the islets with heparin. In the paper by Bennet et al, it was shown for the first time that isolated islets are incompatible with blood. Hence, Nomura et al were not aware of this incompatibility when they published their study in 1996. They gave heparin to the experimental animals simply according to general practise. The Appellants showed (see Bennet et al) that the incompatibility problems could be down-regulated to some

extent by giving heparin systemically, but the doses needed would induce bleeding hazards.

Treating the islets with heparin according to the present invention, by preincubation of the islets in an aqueous solution of heparin, represents a new approach to avoid the incompatibility problem without inducing an increased risk for bleeding. By attaching heparin locally on the surface of the islets, the total exposure of heparin to circulation is reduced dramatically, so even if all heparin would be adsorbed and diluted in the circulating blood, there would be no measurable effect *in vivo*.

Again, the rejection based on Nomura is entirely unjustified for the reasons given in Appellants' main brief, and for the additional reasons provided above. Again, as in the anticipation rejections based on Wagner and Soon-Shiong, the Examiner has not met her burden, and the rejection should be reversed. Such is respectfully requested.

**The rejection of Claim 9 under §103 is unjustified**

Claims 4, 8, 11 and 27 have not been rejected under §103, but claim 9, which depends from and incorporates the subject matter of claim 4, has been rejected as obvious under §103 from Soon-Shiong "and" (or ?) Wagner in view of Couser. The dependent part of claim 9 adds to claim 4 only that the

clotting inhibiting agent is supplemented by an inhibitor of complement.

Couser et al appears to be cited only for the use of complement which is set forth in the dependent part of claim 9, and has nothing to do with the part of claim 9 which appears in claim 4 which claim 9 incorporates. Moreover, Appellants further maintain that Couser is even relatively distant from the dependent part of claim 9, and entirely unrelated to either Wagner or Soon-Shiong.

In this regard, Couser discloses that complement is a major mediator of tissue injury in several types of glomerulonephritis. To test for a therapeutic agent that would inhibit complement activation, a recombinant, soluble human complement receptor molecule was tested on rats by administration of the molecule to the rats. This is a far, far stretch from claim 9 where an inhibitor of complement was added during the modification of the individually isolated islets by irreversible absorption with the clotting inhibiting agent, and involving no administration of an inhibitor of complement to rats or any other mammals.

The prior art provides no reason why a person of ordinary skill in the art would want to modify either Soon-Shiong or Wagner, or both of them together(?), by anything disclosed in Couser which is extremely diverse from both

Wagner and Soon-Shiong. Moreover, even if such a combination were obvious, respectfully but vigorously denied by Appellants, the resultant combination would still not reach claim 9 by virtue of the aforementioned distinctions pointed out with respect to claim 4.

Again, the Examiner has not met her burden and the rejection should be reversed. Such is respectfully requested.

**Factual Errors in the Examiner's Answer**

Respectfully, the Examiner's Answer is so replete with errors that to deal with each one in detail would make this Reply Brief undesirably prolix. Accordingly, Appellants wish to briefly address several of these factual errors. The pages and lines referred to below are from the Examiner's Answer.

Page 5, line 4: immunosuppression has nothing to do with the present invention, contrary to the implication of the Examiner.

Page 5, lines 12-15: the Examiner again incorrectly reiterates that Corline Heparin Conjugate must form microcapsules. This is contrary to fact as is proven in the declarations of record, noting particularly the second declaration. The isolated islets modified according to the

present invention by irreversible adsorption of the clotting inhibiting agent are not encapsulated.

Page 7, lines 6-9 and 20 *et seq.*: one may (or may not) choose to administer sCR1 in combination with heparin-coated cells, but that has nothing to do with the present invention. sCR1 is effective against complement but not coagulation or platelet activation.

Page 7, lines 10-20: the Examiner again confuses heparin adsorbed islets according to the present invention with encapsulated islets as in Wagner and Soon-Shiong.

Page 8, lines 7-15: Appellants' position as expressed in Appellants' main brief (and above) is correct. The incompatibility of islets with blood was not known until the publication of Bennet et al in 1999. The erroneous conclusion reached by the Examiner resides in a lack of understanding as to the differences between heparin adsorbed individual islets according to the present invention, and encapsulated islets according to Wagner and Soon-Shiong.

Page 8, line 22: here the Examiner appears to admit that heparin is used in Wagner in the "immobilization system" of Wagner. As pointed out above, the immobilization system of Wagner is different and distinct from the islets.

Page 9, lines 4 and 5: Appellants have difficulty in understanding what the Examiner is referring to. Here, the

Examiner is mixing things up by reference to the immobilized organic material being provided with an agent, such as heparin, to suppress agglomeration. Respectfully, the examiner appears to be confused.

Page 9, lines 14 and 15: here again, the Examiner erroneously confuses encapsulation as in Wagner and Soon-Shiong in which the islets are provided with a coating to seal the islet against immunological reactions, with the present invention in which the islets have the heparin adsorbed on their surfaces without a sealing coating to protect against immunological reactions.

Page 9, line 20, through page 10, line 4: contrary to the Examiner's statement, the heparin in Soon-Shiong is clearly linked to the microcapsules. There is no provision in Soon-Shiong for any method of adsorbing heparin onto the isolated islets, as claimed by Appellants.

Page 10, lines 7-14: as pointed out above there is no way that Nomura inherently anticipates Appellants' claims.

Page 11, lines 12 and 18: the Examiner expresses what is "unclear" to her. In spite of Appellants' many attempts to explain the differences between the irreversible adsorption of heparin onto the islets as claimed, as opposed to encapsulation according to the prior art, the Examiner is correct in indicating that she does not understand. But

still, the Examiner does not accept the evidence provided in the Declarations of record, including the Declaration of Professor Shapiro, an independent and undisputed expert in the field.

Page 12, line 8: the Examiner puts the word "because" in the mouth of Appellants, whereas Appellants never used that word in conjunction with the text quoted by the Examiner which follows the word "because". It is true the capsule material of the prior art is used to avoid immunological reactions (c.f. Declaration of Prof. Shapiro). Poor compatibility of the capsule material is a drawback that comes as a consequence of using such capsule material, but the poor compatibility is not linked to the immune barrier in any way. The correct understanding is as follows: Wagner wants to use a capsule material to protect the immobilized organic material (e.g. islets) against immunological reactions. By encapsulating the islets, Wagner then has to solve the second problem of blood incompatibility of the immobilization system.

To the contrary, the Appellants discovered the problem of blood incompatibility of the individually isolated islets, and invented a solution to that problem according to the present invention, with no intention of addressing the immunological problem. Using the present invention does not deal with the immunological problem, and use of the present



invention relies on the established drug related experience of handling the immunological problem by immunosuppression.

Page 13, lines 21 and 22: the present invention relates to the preparation of the islets to make such islets ready for intraportal injection of such isolated islets. The injection step, not presently claimed, involves using what is prepared according to the method of the present invention.

Page 14, bottom paragraph: the Declaration filed April 4, 2007 (the "second" declaration) declares, based on the experience of the declarants and the literature, that the capsule shells in Wagner and Soon-Shiong encircle the islets with a space therebetween:

Considering that the islets have a size 50-300  $\mu\text{m}$ , we state as fact beyond any doubt that one or several islets will be enclosed in each microcapsule with considerable dead space between the islet(s) and the enclosing membrane.

Against this, the Examiner merely speculates.

Such declaration then continues:

Even with the most advanced technology, the capsules of the prior art leave a dead space of 25-50  $\mu\text{m}$  between the cell surface and the polymer membrane (see Fig. 1 below).

It is true that the aforementioned Fig. 1 is not from Wagner or Soon-Shiong, but is from contemporary literature which is (and is indicated to be in the Declaration) generally

equivalent to Wagner and Soon-Shiong. Why this would be doubted is beyond Applicants' understanding. Moreover, it is generally consistent in this regard to the disclosure of Wagner at pages 6 and 7 of the Wagner translation, where it is stated that the "microcapsules have a diameter of 0.5 mm" and the islets have a size of "50-300  $\mu\text{m}$ ." Page 7 of the Wagner translation states in this regard as follow:

3. Most of the microcapsules of a diameter of half a millimeter have a volume several times larger than that of the islets of Langerhans, which are 50-300  $\mu\text{m}$  in size.

The Examiner was unjustified in brushing aside the evidence of the Declarations of record in the present application.

Page 15, lines 15-18: the Examiner doubts that Wagner and Soon-Shiong provide microcapsules of an insoluble polymer with a cross-longitudinal network of bonds. The somewhat cryptic disclosure of Wagner refers to "artificial membranes" (top paragraph on page 5 of the translation), and "capsules made of alginate complexed with polylysine" (page 6, third paragraph of the Wagner translation). Wagner says little more, except that at page 23 there is a reference to coatings formed by copolymerization, including the mention of hydroxyethylmethacrylate. Wagner has one example which uses a capillary membrane of silicone tubing, surely involving longitudinal networks. The burden is on the Examiner to

establish anticipation, and there is nothing in Wagner which anticipates modification of isolated islets by irreversible adsorption as claimed.

The abstract of Soon-Shiong mentions free radical polymerization, and the manufacture of "polymerizable microcapsules" of the polymerizable materials. Examples 1-7 all mention the preparation of cross-linkable polysaccharide.

Page 16, line 7: Appellants have maintained that Wagner is not enabling to provide the present invention. The burden is on the Examiner to show where Appellants' claimed invention is to be found in Wagner. The Examiner has not done so and cannot do so. Appellants have pointed out above where Wagner teaches an insoluble polymer shell, and this is suggested by the very terms of "artificial membranes [to] protect the free islet cells", "microcapsulation", "individual islets... enclosed in... capsules made of alginate complexed with polylysine," and "microcapsules." Such an understanding is confirmed by the Declarations of record, which constitute evidence, which evidence has not been given proper weight by the Examiner.

Page 16, line 14 and 15: as pointed out above, Wagner does not disclose and does not teach that heparin (claim 7) is employed to treat the islets, as claim 7 incorporates claim 6 which is directed to the immobilization

system (a porous or hollow material according to claim 8) rather than the islets themselves.

Page 16, lines 19 and 20: again, Wagner uses silicone tubing, hollow fibers and alginate capsules, collectively referred to as the immobilization system, e.g. see Fig. 1 of Wagner. These are all insoluble barrier shells. Moreover, the Examiner has no right to substitute speculation in place of the statements in the declaration of a world-renowned expert, Prof. Shapiro.

Page 16, line 21: providing a porous immobilization system as permitted according to claim 8 of Wagner is no disclosure of the claimed subject matter which involves modification of the individually isolated islets by irreversible adsorption with the clotting inhibiting agent, e.g. heparin.

Page 17, lines 7-9: Prof. Shapiro's Declaration supports Appellants' statement that "it is well known that main reason for using encapsulation is to avoid immunological reactions." The Examiner has no evidence to the contrary. If any more evidence is needed, and none should be necessary, it appears in the second Declaration with reference to an article by Dufrane et al that describes the state of the art with respect to encapsulation.

Page 17, line 15: while heparin is primarily used as anti-coagulant, it in addition has a broad range of interactions (see Larsson R.: Heparin binding to improve biocompatibility. In Encyclopaedia of Biomaterials and Biomedical Engineering. Marcel Dekker N.Y. 2003).

Page 18, lines 14-18: the Examiner is again confused and is mixing things up. It is single heparin molecules that can be conjugated with a polymer comprising a substantially straight-chained backbone, and this results in Corline Heparin Conjugate which is still a water-soluble macromolecule that can be (and is) adsorbed according to the present invention onto the islet surfaces without creating any microcapsule or any other type of protective shell.

#### **The Examiner's legal mistakes**

The Examiner has misunderstood the requirements of §102 which requires that the reference must disclose each and every element of the claimed invention, and arranged or combined in the same way as in the claim. The prior art does not do so. The prior art does not put the skilled reader in possession of the claimed subject matter. The prior art does not enable the skilled artisan to make and use the claimed invention.

The Examiner has substituted speculation for evidence, has not given all the terms in the claims full consideration, and has not given the evidence of record in the form of the Declarations the weight to which those Declarations are entitled as evidence.

The Examiner has incorrectly assumed inherency under conditions in which inherency cannot be properly assumed, e.g. there is no reasonable certainty of inherency in the areas in which the Examiner has assumed such inherency.

Lastly, and although this point is relatively minor, the Examiner has set up a straw man in the penultimate paragraph on page 10 of the Examiner's Answer with respect to Appellants' discussion of Couser in the rejection under §103. References must be discussed individually in order to make sense of why they do not in combination make the claimed subject matter obvious.


CONCLUSION

Appellants' claims are neither anticipated nor made obvious by the prior art. The Examiner has not met her burden. The rejections should be reversed and such is respectfully requested.

Respectfully submitted,

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